Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

BULLETIN
OF THE
TORREY BOTANICAL CLUB.

Vol. XI.] New York, July, 1884. [No. 7.

New North American Fungi.

By J. B. Ellis and Benj. M. Everhart.

Æcidium Ligustici.—Cups small, margin narrow, subentire, collected in clusters 2–3 mm. in diameter on the under side of the leaves. Spores irregularly globose, 18–20μ (orange ?) The upper side of the leaf is obscurely marked with pale, yellowish spots, indicating the position of the *Æcidium* opposite.

On *Ligusticum Scoticum* from the Island of Anticosti (Gulf of St. Lawrence), August, 1883. Prof. J. Macoun (No. 311.)

Septoria aciculosa.—Perithecia innate-superficial, mostly in clusters of two or three together, black, minute, on the lower face of the leaf. Spores acicular, continuous, 12–20x1μ. Accompanied with *Sphærella Fragariæ*, Tul.

On strawberry leaves. Anna, Ill., May, 1883. F. S. Earle.

Septoria Pentstemonis.—Perithecia punctiform, black, epiphyllous, on small, white, round, thin spots, with a dark, purple-shaded border ; spores cylindrical, slightly curved or undulate, 14–20x1μ, faintly nucleate.

On leaves of *P. digitalis*. Anna, Ill., June, 1883. F. S. Earle.

The perithecia are visible on both surfaces of the leaf, but open above.

Excipula subcalva.—Excipulum thin, substriate, 150–200μ in diameter, margin incurved when dry, jagged and uneven from the unequally developed tips of the brown, elongated constituent cells ; basidia slender, branching 50–75μ long, bearing at their tips the minute (3–4 x .5–.75μ) oblong-cylindrical spores.

On fallen leaves of *Quercus obtusiloba*. Newfield, N. J., May, 1882.

Hendersonia platypus.—Seated on oblong or roundish white spots 2–4 x 1–2mm., perithecia punctiform, black, subelongated; spores mostly oblong elliptical, but rather variable in size and shape, mostly 12–15 x 3.5–4μ, but some of them shorter and broader, and some longer (19μ) and narrower, all 3-septate, yellowish-brown, on pedicels about 7μ long, with a broad base. The cuticle of the cane is soon eaten away in the white spots, leaving the surface of the inner bark exposed in the shallow depressions thus formed. Accompanied with a *Phoma* (*P. lethalis*, E. & M.) having small subglobose (2 x 1.5μ) brownish spores.

Differs from *H. sarmentorum*, West., in its smaller perithecia on white spots, and its rather smaller spores on pedicels swollen at the base. On living canes of *Rubus villosus* and *R. Canadensis*. Cobden, Ill., Feb., 1884. F. S. Earle.

PEZIZA EARLIANA.—Erumpent, scattered, liver-color; darker when dry, closely surrounded by the epidermis, hemispheric and nearly closed at first, at length expanding so as to show the pallid disk; margin suberoded, minute (.12–.17$^{\text{mm.}}$); asci sessile, oblong, 50–55x12μ; paraphyses stout, and, when mature, distinctly and abruptly swollen at the tips ; sporidia crowded, oblong-cylindrical, obtuse at each end, 3–4–nucleate, hyaline, 15–18x 2.5–3μ.

Differs from *P. Dehnii*, Rab., in its smaller size, scattered mode of growth, broader asci, larger sporidia and club-shaped paraphyses.

On the under side of dead leaves of *Fragaria.* Anna, Ill., May, 1883. F. S. Earle.

NECTRIA CANADENSIS.—Perithecia cæspitose, ovate, .33$^{\text{mm.}}$ broad by about .5$^{\text{mm.}}$ high, densely tuberculose-granulose, dull red ; ostiola broad, obtuse, not prominent, but distinctly stellate cleft and slightly collapsing when dry ; asci and paraphyses evanescent, the former about 75–80x10–12μ (spore-bearing part) ; sporidia irregularly crowded, hyaline, oblong, 3-septate, slightly curved, ends obtuse, 18–21x7–9μ.

The conidial stage is a *Tubercularia*, .5–2$^{\text{mm.}}$ high, with an orange-colored head bearing oblong, 5–7x1.5μ conidia and brick-red stem bursting out through cracks in the bark in continuous series two or three inches or more in extent. From the basal portion of this *Tubercularia* the perithecia arise, and finally entirely surround and overtop the orange heads of conidia, which are either entirely hidden or remain partly visible in the midst of the dense clusters of perithecia.

Allied to *Sphæria pseudotrichia*, Schw. On bark of elm limbs. Ottawa, Canada, August, 1883. Macoun (No. 311.)

BOSELLINIA MACOUNIANA.—Gregarious, superficial, ovate, .33$^{\text{mm.}}$ in diameter, covered, with the exception of the prominent ostiolum, with a coat of short, light purplish tomentum; asci long and narrow (100μ and over); sporidia uniseriate, overlapping, 19–22 by about 6μ, 2–nucleate, brown, oblong or subnavicular.

On rotten wood. Ottawa, Canada, Oct., 1883. Macoun (No. 253.) From other localities I have received specimens of what appears to be the same, only with the perithecia denuded and black (old) and much resembling old specimens of *Sphæria subiculata*, Schw., which, in the absence of the yellow evanescent subiculum, may be distinguished from this by its smaller (10–13μ long) sporidia.

NUMMULARIA PEZIZOIDES. — Stroma carbonaceous, erumpent, superficial, depressed-obconic, black outside and rufous brown within, about 1$^{\text{cm.}}$ broad and .5$^{\text{cm.}}$ thick, with a narrow sublobate margin; disk thickly studded with the strongly prominent, papillate ostiola; perithecia flask-shaped, or subangular by compression, about 1$^{\text{mm.}}$ high; sporidia narrow-elliptical, a little bulging on one side, brown, 1–2-nucleate, 11–13 x 4–5μ.

On bark. Ottawa, Canada, Oct., 1883. Macoun (No. 228). Since found at Topeka, Kansas, by F. W. Cragin.

The specimens being rather old, the asci had disappeared. This has the general appearace of a thick, narrow-margined *Peziza*, and, judging from the description of that species, must be much like

Nummularia Moselei, Berk., but is apparently distinct. The Kansas specimens were on decorticated wood and were rather smaller.

PLEOSPORA CLARKEIANA.—Perithecia minute (.1$^{\text{mm.}}$), membranaceous, scattered, sunk in the substance of the leaf, the upper part slightly projecting and closely covered by the blackened epidermis, and finally collapsing; ostiola scarcely prominent; asci subcylindrical, 125 x 25μ; sporidia biseriate, pyriform or oblong, mostly slightly constricted across the middle, about 7-septate, becoming muriform and brown.

On dead leaves of *Plantago maritima ?* Island of Grand Menan, (Maine), June, 1884. Miss C. H. Clarke. Allied to *P. Heleocharidis*, Karst, but asci and sporidia smaller.

SPHÆRELLA GALLÆ —Perithecia minute, scattered, or in groups of 2–3 together, rupturing and loosening the epidermis; asci 40–45 x 10μ, sessile; sporidia crowded in 2–3 series, slender, clavate, 1–septate, 12–15 x 3μ (at the broad end).

On galls of *Vaccinium corymbosum*. Newfield, N. J., July, 1883.

Notes on the Botrychia.—I give some facts that struck me in recently gathering specimens of *Botrychium rutaceum*, Sw., and *B. lanceolatum*, Angst. The peculiarity of their growth is this : they are found at the head of a ravine, in shade, but generally in shaly soil that is almost barren of small undergrowth, and has but a slight covering of vegetable mould—sometimes none at all. They were so mature on June 28th that a tiny cloud of spores flew from the fertile fronds the first time they were touched. They grow in little colonies here and there where the soil seems to be suited to them. The two species grow together, *B. rutaceum* having sterile fronds that are almost uniform in width throughout, and pinnules that are broad, blunt and toothed. *B. lanceolatum*, on the contrary, is deltoid in shape, and has comparatively long and narrow pinnules. There is also a form of *B. rutaceum* in which the sterile frond is almost as finely incised as in *B. ternatum* var. *dissectum*. This is exceedingly pretty and delicate.

I had been quite inclined to believe that these two species were in reality only different forms of the same thing. They grow in the same locality, and often close to each other. But proximity by no means signifies consanguinity, and small forms of *B. Virginicum* grew there even more plentifully than either of the others, although it preferred the vegetable mould. So I made an examination of the bud forms and found them to agree substantially with Mr. Davenport's descriptions. There was a slight difference in the *rutaceum*, or *matricariæfolium* as he designates it, if I understand his description aright. He says: " the apex of the *fertile* frond is *bent downward* in the bud toward the sterile frond, which clasps it with its side divisions and bends its apex downward over the whole." In my specimens the fertile frond is shorter than the sterile in the bud, and stands up perfectly straight ; but it is clasped by the sterile frond exactly as he describes. Both the figure and description of *B. lanceolatum* that he gives are capital, and cannot be bettered.

There is in my herbarium a monstrosity of *B. rutaceum* in which